1 | Rights Issues

How to Use This Booklet

Data visualization can make information more memorable, more persuasive, facilitate understanding and ultimately motivate action. And within human rights research, it can help investigators and researchers draw a bigger picture from individual human rights abuses by allowing them to identify patterns that may suggest the existence of abusive policies, unlawful orders, negligence, or other forms of culpable action or inaction by decision-makers.

The purpose of this activity is to explore some of the ideas and principles around designing effective data visualization for human rights advocacy.

This activity is broken into a series of five steps each with its own PDF guide. The five steps are:

Step 1: Choose a human rights issue

Step 2: Discuss some kinds of data you might acquire

Step 3: Consider what question are you trying to answer with your data and visualization

Step 4: Choose a chart type for your visualization

Step 5: Consider some data and visualization hazards and ways your charts can be improved

Each step has a corresponding list of options and choices. Read through each step and follow the instructions. Explore the options for each step as you progress.

Step 1

Choose a human rights issue

The first step in this activity is choosing a human rights issue you will use as the basis for discussing a data visualization. It does not necessarily have to be an issue you are deeply familiar with or that you work on.

This list of rights is drawn from a list of human rights issues on the UN Office of the High Commissioner for Human Rights web site. It is not intended to be an authoritative list of human rights, but rather a sampling of rights and some related data sources for the purpose of discussion.

Access to Justice & Rule of Law

The World Justice Project maintains a Rule of Law Index derived from household and expert survey on how the rule of law is experienced by the general public.

The World Bank's Worldwide Governance Indicators are also drawn from survey data and measure six dimensions of governance: Voice and Accountability, Political Stability and Lack of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.

In 2011, the Office of the High Commissioner for Human Rights and the Department of Peacekeeping Operations published a report on Rule of Law Indicators for assessing the rule of law in post-conflict situations.

Transparency International has published the Corruption Perceptions Index since 1995. The index measures the perceived level of public-sector corruption. It is a survey of surveys drawing on 13 different surveys and assessments from 12 different institutions including NGOs and development banks.

Assembly & Association

The Labour Rights Indicators data set is prepared by the Center for Global Workers' Rights to provide comprehensive numerical information on country-level compliance with freedom of association and collective bargaining rights that is comparable between countries and over time.

The Index of Freedom in the World is published by the Fraser Institute, Germany's Liberales Institute, and U.S. Cato Institute to measure classical civil liberties, including the freedom of assembly and association.

Similarly, Freedom House has developed its Freedom in the World Index that ranks countries by political and civil rights that are in large part derived from the Universal Declaration of Human Rights.

The Institutional Profiles Database by Center for Prospective Studies and International Information constructs composite indicators built from perception data to facilitate research on the relationship between institutions, long-term economic growth, and development. For example, the degree of public freedom indicator in each country is addressed by considering factors such as freedom on assembly and association.

Business & Human Rights

The Corporations and Human Rights Database Project documents claims of human rights abuses by companies around the world, capturing information on the date and location of claims about corporate human rights abuse, as well as the type of abuse reported.

The Human Rights Indicators for Business is a database of 1000 indicators concerning corporate policies, procedures, and practices related to human rights. Created by the Danish Institute for Human Rights, the indicators compare business performance against human rights legal standards.

The World Bank's Getting to Equal report collects data to measure the legal and regulatory barriers to women's entrepreneurship and employment in 173 economies in its. The report illuminates how government policies and unfair business practices constrain women's economic opportunities.

The Extractive Industries Transparency Initiative data documents government revenue and expenditure from oil, gas, and mining to facilitate public understanding. The Resource Government Index measures the quality of governance in the oil, gas and mining sectors of 58 countries.

The Land Matrix is a public database on land deals that promotes transparency and accountability in decisions over land and investment.

Children

The Kids Rights Index is an annual global index that ranks countries according to five dimensions of children's rights: the rights to life, to health, to education, to protection, and the existence of an enabling environment for children's rights. The Index is maintained by the Erasmus University Rotterdam, Erasmus School of Economics, and the International Institute of Social Studies.

UNICEF's Multiple Indicator Cluster Survey Program is an international household survey initiative to monitor the situation of children and women. MICS data is collected in cooperation with national statistical offices, but uses the same methodology around the world so is internationally comparable. Survey questions cover health, education, water and sanitation, poverty, parenting, and demographics. UNICEF also maintains the Children's Rights and Business Atlas, a risk assessment tool to help businesses identify potential harms to children's rights in 198 countries.

UNESCO maintains data on education participation and investment, and the ILO's International Programme on the Elimination of Child Labour hosts country surveys.

The Children and Armed Conflict Accountability Resource Database lists judicial and non-judicial resources focused on accountability.

Cultural Rights

UNESCO maintains data on cultural employment, world heritage sites and world heritage in danger, as well as world languages in danger.

The UNESCO Culture for Development Indicators highlight how culture contributes to economic growth, helps communities expand their life choices and adapt to change.

Satellite imagery has been used to assess damage to international heritage sites in conflict zones.

Death Penalty, Executions & Disappearances

Some governments release detailed data on capital punishment, while others release nothing at all.

Cornell Law School Center on the Death Penalty Worldwide hosts data on global executions.

The Political Terror Scale assesses the human rights situation in on a yearly basis in a large number of countries. The Scale codes information concerning extrajudicial executions, torture, political imprisonment, and exile.

The Death Penalty Information Center hosts a searchable database of executions carried out in the United States.

Data on extrajudicial executions has been collected by human rights organizations using household census and random sampling. See the work of the Human Rights Data Analysis Group for examples in this space.

Detention

The United Nations Office on Drugs and Crime maintains a spreadsheet of total persons held in prisons drawn from national statistical agencies.

The World Prison Brief publishes a list of totals and rates of prison population as well as pre-trial/remand imprisonment, though notes that this is incomplete.

The Global Detention Project hosts country profiles that include statistics about the number and demographic information of individuals held in immigration or criminal detention.

Data on criminal, administrative, migrant, and psychiatric detention may be available at the country level.

Discrimination and Inequality

One method for identifying patterns of discrimination with data is comparing different demographic groups within the same dataset (e.g. ethnicity, gender, age, income, urban vs rural, religion, caste, etc.) While the existence of a disparity will not, on its own, indicate discrimination, it is an important part of a contextual analysis concerning discrimination. This kind of analysis can be done with any dataset containing demographic variables relevant under human rights law.

However, where demographics are concerned, data may be affected by bias for a variety of reasons. Different groups may respond to different survey methods differently, for instance, in a phone vs web survey, or if a survey is presented in only one language. Demographic categories may also not reflect the nuance of a population's self-identification. Data collection is further complicated where social stigma or repressive policies are concerned.

Concerning wealth disparities, the World Income Inequality Database contains data about income inequality for countries in all development groups. The OECD Income Distribution Database includes data about average and median household incomes, relative poverty rates, and Gini coefficients across a large number of countries.

Education

The Right to Education Initiative includes an online guide to existing data and statistics relevant to the right to education.

UNESCO publishes a range of data on education, literacy, and gender equity.

Service delivery indicators include government expenditure on education and school construction, pupil-teacher ratio, and teacher quality.

Outputs include access and enrollment, years of schooling, out-of-school children, and completion rates.

Outcomes include literacy and numeracy skills.

Whenever possible, education data can be usefully analyzed for inequalities and disparate impacts using disaggregation and cross-tabulation by relevant axes of identity (race, sex, immigration status, indigenous group, etc.).

Environment & Climate Change

While scientific data on climate change is increasingly available, its causes and impacts are not always clearly traceable to local contexts. For instance, rising sea level affecting an indigenous community could be traced to global warming, while the causes of an extended drought in central Africa are more complex and difficult to prove. The Intergovernmental Panel on Climate Change and UN Environmental Program aggregate and make government data available.

On the other hand, pollution can have both local causes and a clear local impact that disproportionately affects particular communities. While scientific data is more readily available in some parts of the world, citizen science initiatives are increasingly filling gaps with open source tools and technologies. The failure of governments to inform citizens about risks also raises access to information issues.

Global Witness has published an annual index of environmental defenders killed since 2002.

The Environmental Justice Atlas catalogs social conflict related to environmental issues around the world.

Food

Hunger is often measured by its impact: the rate of undernourishment. A rights-based approach to monitoring the right to food would also look at policies, processes, and outcomes. The World Food Programme's Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of the national food security is a helpful guide to the normative content of the right to food, and additional handbooks provide concrete advice on how to implement and monitor this right.

The Hunger and Nutrition Commitment Index ranks governments on their political commitment to tackling hunger and under-nutrition. The index is built from 22 indicators focused on laws, programs, and government spending. Data on child underweight rates, wasting, and stunting are available form the WHO's Global Health Observatory, and disaggregated data related to child nutrition are available through the ICF-Macro's DHS, UNICEF's MICS surveys.

The World Food Program Food Aid Information System database tracks international food aid flows. The Global Nutrition Report reports on key data each year; its data sets are available online.

Freedom of Opinion & Expression

Since 1992, the Committee to Protect Journalists published a database of killed journalists and media workers. CPJ also publishes a yearly census of journalists in prison, journalists in exile, and missing journalists,

PEN maintains a database of individual writers and creative artists who are being persecuted because of their work.

Freedom House also publishes an index on freedom of the press, as well as a survey of civil and political rights that also covers freedom of expression. The World Justice Project's Rule of Law Index includes data concerning fundamental rights including freedom of expression, opinion, religion and belief.

Both the OpenNet Initiative and Freedom House have published data on internet access, censorship, and surveillance around the world.

Operated operated by Index on Censorship with the European Federation of Journalists and Reporters Without Borders, Mapping Media Freedom identifies threats, violations and limitations faced by members of the press throughout European Union member states, candidates for entry and neighboring countries.

Health

The right to health is broad and encompassing: consult the OHCHR's Toolkit for guidance on its many attributes. At a local level, measures of health status and mortality are important, but also measures of access to drugs, clinics, and health services. This may be measured by city or provincial health authorities, or by local monitoring. Disaggregation of such data by relevant stratifiers and axes of discrimination can be enlightening.

At a national level, foreign aid and budget data, expenditures, taxes, and allocations for health at different levels of administration will be important. Data on key health indicators at the household level are available for many countries through the DHS and MICS survey databases.

Key population size estimates can determine who is most effected by policies and what their health status is, how many cases there are, and if there are disproportionate impacts regarding who is already being reached and who is not, how to reach them, and how funding should be allocated.

At a global level, indicators from the World Health Organization and UN AIDS can illustrate health status and some measures of access and impact. However, health data quality is complicated and can be poor, particularly in relation to marginalized populations or criminalized communities.

Housing

The right to housing encompasses the right to a safe and secure home in a community where dignity is upheld. Consult the OHCHR Toolkit on the Right to Housing for an explanation of all the elements of this right.

Data on housing quality and access to essential services for urban and rural households for many countries can be found through ICF-Macro's DHS, UNICEF's MICS, and the World Bank's LSMS data repositories. UN Habitat aggregates government data on cities, but not rural or ex-urban housing.

Data on *habitability* includes proportion of population with sufficient living space, in permanent structures in compliance with building codes, or living near hazardous conditions. Data on *housing affordability* includes development assistance for housing as a proportion of public expenditure and the proportion of households spending more than x percent of their income on housing. Data on *security of tenure* include data related to disputes related to housing, numbers of evictions or displaced persons, and the proportion of women with titles to land or property. Data related to *accessibility of services* includes percentage of the population with access to improved sanitation or water, and the share of public expenditure on provision and maintenance of sanitation, water, and electricity.

Indigenous Peoples

The human rights of indigenous peoples are wide-ranging, encompassing rights to self-determination, non-discrimination, and protection of their collective identities, land, and cultures.

Data collection and disaggregation concerning indigenous peoples is often inadequate and the UN Permanent Forum on Indigenous People's Rights notes challenges including regional differences defining what constitutes "indigenous," "tribal," or "ethnic group," migrations of people, and limited access due to conflicts. The group stressed the importance of empowerment and participation in all stages of data collection, including planning, implementation, analysis and dissemination, access and return. One example of this, the NGO Digital Democracy has worked with marginalized communities, empowering them with methods for self-determination in collecting, analyzing, and visualizing their data.

LandMark is an online mapping platform for information on collective land and natural resource rights of indigenous peoples around the world.

The Indigenous Rights organization Tebtebba has compiled Indicators Relevant for Indigenous Peoples: A Resource Book.

Internal Displacement

The OHCHR has compiled a helpful overview of the rights of internally displaced persons. The Internal Displacement Monitoring Centre maintains a widely cited database of displacement estimates related to conflict and violence, and disasters.

UNICEF tracks child migration and displacement and makes this data available.

The International Organization for Migration helped develop the Displacement Tracking Matrix to track and monitor the displacement and population mobility during emergencies.

Migration

Migration is a complex issue, involving human rights risks in the home country, countries of transit, and host countries.

The UN maintains the Global Migration Database. The International Labour Organization maintains data on labor migration. UNHCR maintains current and historical data on refugees.

The 2016 Migration Governance Index, formulated by the Economist Intelligence Unit and supported financially by the International Organization for Migration, assesses country-specific migration governance policies and institutions.

The Migrant Integration Policy Index measures policies to integrate migrants in all EU Member States, Australia, Canada, Iceland, Japan, South Korea, New Zealand, Norway, Switzerland, Turkey and the USA. The index is a useful tool to evaluate and compare what governments are doing to promote the integration of migrants in all the countries analyzed.

The Asylum Information Database contains asylum conditions and policies for 16 countries in Europe.

Some country data sets in ICF-Macro's DHS, UNICEF's MICS, and the World Bank's LSMS can be disaggregated by migration status.

Minorities

What groups are considered a minority is contextual. This could be based on definitions of race, gender, sexual orientation, language, caste, indigenous group, or other variables related to identity. Wherever minority groups are subject to discrimination and marginalization, human rights law exists to protect them. This is not always the case for data: many minorities are un- or under-counted, and some countries prohibit the collection of data on ethnicity, race, and other variables. Previously hidden communities are beginning to emerge in data sets: sexual minorities are among the groups seeking better enumeration in some countries.

Many country data sets in ICF-Macro's DHS, UNICEF's MICS, and the World Bank's LSMS can be disaggregated by specific variables defining minority groups. The European Union Agency for Fundamental Rights conducts periodic surveys on discrimination against minorities, making both findings and data available occasionally. The University of Maryland Minorities at Risk dataset tracks 284 politically-active ethnic groups throughout the world from 1945 to the present. The associated discrimination dataset records overall levels of political and economic discrimination for all groups in the Minorities at Risk Project for the period 1950-2003.

Poverty

Poverty is both a cause and a consequence of human rights deprivations. The World Bank and UNDP maintain data on poverty and human development indicators. DHS data can be disaggregated by wealth quintiles, as can MICS and LSMS data.

UNDP's Multidimensional Poverty Index complements monetary measures of poverty by considering other overlapping deprivations. The index identifies deprivations across the same three dimensions as the Human Development Index.

The Human Poverty Index is a composite index, which assesses three elements of deprivation in a country - longevity, knowledge, and a decent standard of living. The Global Multidimensional Poverty Index, developed by Oxford Poverty and Human Development Initiative with UNDP, measures acute poverty covering over 100 developing countries. It complements traditional income-based poverty measures by capturing the severe deprivations that each person faces at the same time with respect to education, health and living standards. The Index of Social and Economic Rights Fulfillment (SERF Index) uses survey-based data published by national and international bodies to measure the performance of countries and sub-national units on the fulfillment of economic and social rights obligations.

Privacy

The right to privacy is protected by a wide array of human rights treaties, and encompasses the protection of personal privacy, family life, and the right to dignity.

By virtue of its covert nature, data on government surveillance is difficult to find and confirm. While policies and judicial decisions are sometimes available, reliable information is occasionally released in leaks or aggregated in official reports.

PEN has released survey data of writers expressing concern about mass surveillance. Freedom House also includes survey data about open and free private discussion in its annual country reports, as well as internet surveillance.

The Privacy Rights Clearinghouse maintains a searchable database of data breaches including medical, banking, personal devices, and internet service data breaches. The non-profit research initiative Ranking Digital Rights examines privacy policies and user data retention as part of its Corporate Accountability Index.

In 2013, the OpenNet Initiative published data on internet censorship, filtering, and surveillance. The Surveillance Industry Index tracks companies and sales of surveillance equipment to governments around the world.

Religion & Belief

The freedom of religion and belief is enshrined in the core human rights treaties.

The U.S. State Department International Religious Freedom Reports are qualitative but have been coded by the Association of Religion Data Archives as part of their Religious Freedom Index.

Freedom House includes freedom of expression and belief as one of the metrics in their annual country reports.

Pew Research Center has been tracking data on religious restrictions in nearly 200 countries and territories since 2007. Their Global Restrictions on Religion data is updated periodically.

The Religion and State project at Bar Ilan University in Israel examines government religion policy and gauges the government support, restrictions, and discrimination against religious minorities.

Sexual Orientation & Gender Identity

In recent years, the legal framework protecting against discrimination on the basis of sexual orientation and gender identity has been made clear. Data concerning these rights and the status of sexual minorities is less commonly available.

Every year since 2006, the International Lesbian, Gay, Bisexual, Trans and Intersex Association publishes its *State Sponsored Homophobia* report, a world survey of sexual orientation laws.

The Relationship between LGBT Inclusion and Economic Development: An Analysis of Emerging Economies is a USAID report compiling statistical research analyzing impact of social inclusion of lesbian, gay, bisexual, and transgender people on economic development in 39 countries

Americas Quarterly prepares a Social Inclusion Index that asses a variety of different factors, including LGBT rights, and scores countries on how they measure up against others of how the region measures up when it comes to social inclusion.

Slavery

The right to be free of slavery is one of the most firmly established rights under international law.

The Global Slavery Index produces a yearly estimate of the number of people in slavery in the world and releases data concerning governmental efforts to end the practice.

In 2016, the International Labour Organization estimated nearly 21 million people were victims of forced labor across the world. Around 90% are exploited in the private economy, by individuals or enterprises. Of these, 22% are victims of forced sexual exploitation and 68% are victims of forced labor exploitation in economic activities, such as agriculture, construction, domestic work or manufacturing. The other 10% are in state-imposed forms of forced labor, in prisons or work imposed by state militaries or by rebel armed forces. 26% of victims are below 18 years.

Data concerning forced labor and human trafficking is hard to estimate because it is a largely hidden crime. The numbers can also vary dramatically depending on the definition.

Torture

All forms of torture and cruel, inhuman or degrading treatment are prohibited by human rights law.

The Ill-Treatment & Torture Data Collection Project codes data on four concepts using Amnesty International documents: Incidence, Perpetrators, Motive, and Judicial Response. Unlike other data on torture, which use the country-year as the unit of analysis, the project uses the individual allegation as the unit of observation.

The CIRI Human Rights Dataset contains standards-based quantitative information on government respect for 15 internationally recognized human rights, including the right to be free of torture and ill-treatment for 202 countries, annually from 1981-2011. It is designed to test theories about the causes and consequences of human rights violations, and assist policy makers who seek to estimate the human rights effects of a wide variety of institutional changes and public policies including democratization, economic aid, military aid, structural adjustment, and humanitarian intervention.

The APT examined torture and prevention mechanisms in 16 countries over a 30-year period using a combination of quantitative and qualitative techniques to determine that torture prevention measures do indeed work.

Voting Rights

The right to vote is one of the most fundamental rights owed to citizens.

Freedom House includes Electoral Process as one of the metrics in its annual country reports.

The International Institute for Democracy and Electoral Assistance maintains a Voter Turnout Database on a wide array of statistics on voter turnout from around the world. In in some cases the data includes statistics on spoiled ballot rate.

Ushahidi is an open-sourced web-based crowdsourcing tool originally developed to process email and text messages to map reports of post-election violence in Kenya in 2008. It has since been used to map violence and other conflict situations around the world.

The Explaining and Mitigating Electoral Violence project at the University of Glasgow gathered data on electoral violence data from national elections from 1995 to 2012 in more than 167 countries and will release it's findings and data in 2018. A 2015 test project used machine learning to classify social media posts to detect electoral malpractice and violence around the 2015 parliamentary election in Venezuela.

Water & Sanitation

Women' Rights

Additional Resources

The rights to water and sanitation are protected implicitly and explicitly by human rights law. Data on access to water and sanitation at the household level for many countries can be found through ICF-Macro's DHS, UNICEF's MICS, and the World Bank's LSMS data repositories.

A number of NGOs and aid organizations have successfully crowdsourced water quality data using SMS text messages and "mWASH" apps, mobile phones to improve water, sanitation, and hygiene services.

The Environmental Performance Index ranks countries' performance on high-priority environmental issues in protection of human health and protection of ecosystems, which includes access to water and sanitation.

The WaSH Performance Index, by the UNC School of Public Health, ranks countries based on water and sanitation performance by assessing performance in water access, water equity, sanitation access, and sanitation equity.

Global Health Observatory data, brings together the main health data and statistics for each country, as compiled by WHO and its partners. It includes descriptive and analytical summaries of health indicators for major health topics such as water, sanitation, and hygiene.

Women's right to equality and non-discrimination is unequivocally protected by international law. The Global Gender Equality Constitutional Database is a repository of gender equality related provisions in 195 constitutions from around the world.

The Gender Data Portal is a World Bank Group source for sex-disaggregated data and gender statistics. WomanStats tracks 350 variables including issues such as rape, sex trafficking, maternal and child mortality, family law, women in government and the military, and many others.

Women, Business and the Law, a World Bank product, measures legal and regulatory barriers to women's entrepreneurship and employment in 173 economies.

Gender Inequality Index is a UNDP index measuring gender inequalities in 159 countries in reproductive health, measured by maternal mortality and adolescent birth rates; empowerment, measured by proportion of parliamentary seats occupied by females and females aged 25 years and older with secondary education; and economic status, measured by labor force participation rate.

The Sexual Violence in Armed Conflict Dataset measures reports of the conflict-related sexual violence between 1989 and 2009.

Primer on Data, Human Rights & Human Security, published by Data & Society. The article attempts to ask, address and predict the complex intersections between human rights, security and data.

About this Booklet

It was inspired by Shiqing He and Eytan Adar's Vizit cards, The Data Visualisation Catalogue by Severino Ribecca, and Tamara Munzner's Nested Model for Visualization Design and Validation.

For more information about data visualization and human rights along with links to resources, research and tools, visit our project page at http://visualizingrights.org.

Please send suggestions, comments, or feedback to john@backspace.com

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